

Name:

Date:

Period:

## Microorganism Notes (Bacteria, Viruses, Protists, & Fungi) KEY

### Characteristics of Bacteria:

- Bacteria are the most abundant organisms on Earth.
- Unicellular = one-celled
- Prokaryote = no nucleus or membrane-bound organelles

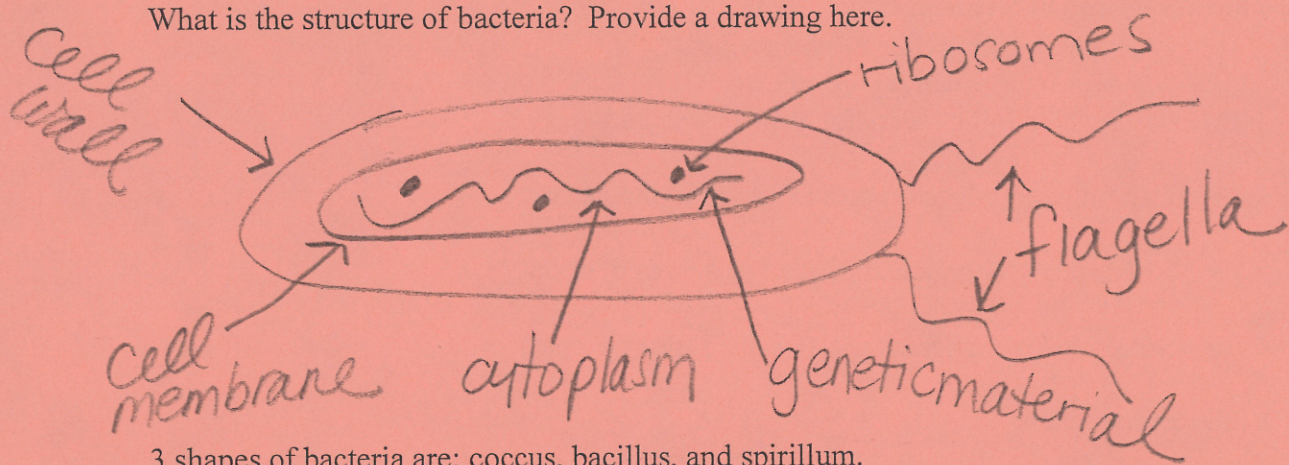
Where do they live? Everywhere

Provide several examples: dirt, air, food, surfaces, skin, food, extreme environments

What size are they? Microscopic

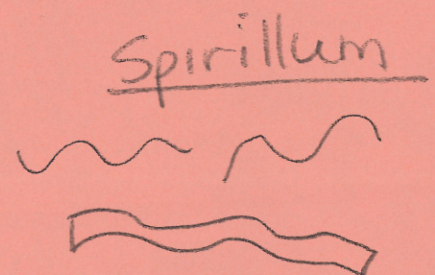
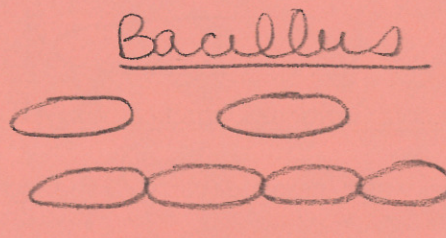
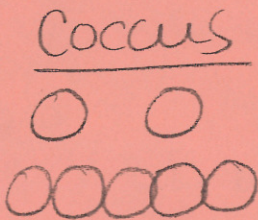
You can fit 1,000 mid-sized bacterium on the period at the end of a sentence.

What is the structure of bacteria? Provide a drawing here.



3 shapes of bacteria are: coccus, bacillus, and spirillum.

- Coccus = sphere (circle) shaped.
  - Bacillus = rod shaped.
  - Spirillum = spiral shaped.
- Draw an example of each shape below.



How do bacteria REPRODUCE?

1. binary fission = splitting into 2 parts

How do bacteria EAT?

- A. Producer -- makes own food using sun's energy
- B. Decomposer -- breaks down dead stuff
- C. Parasite -- harmfully lives off other organisms

Bacteria can be good:

1. In our bodies
2. Medicine
3. Food
4. Provide oxygen
5. Decomposer
6. bioremediation -- clean up Earth's land and water

Bacteria can be bad:

1. Spoils food
  2. Pathogen
- Examples: E. coli, salmonella, staphylococcus, and streptococcus

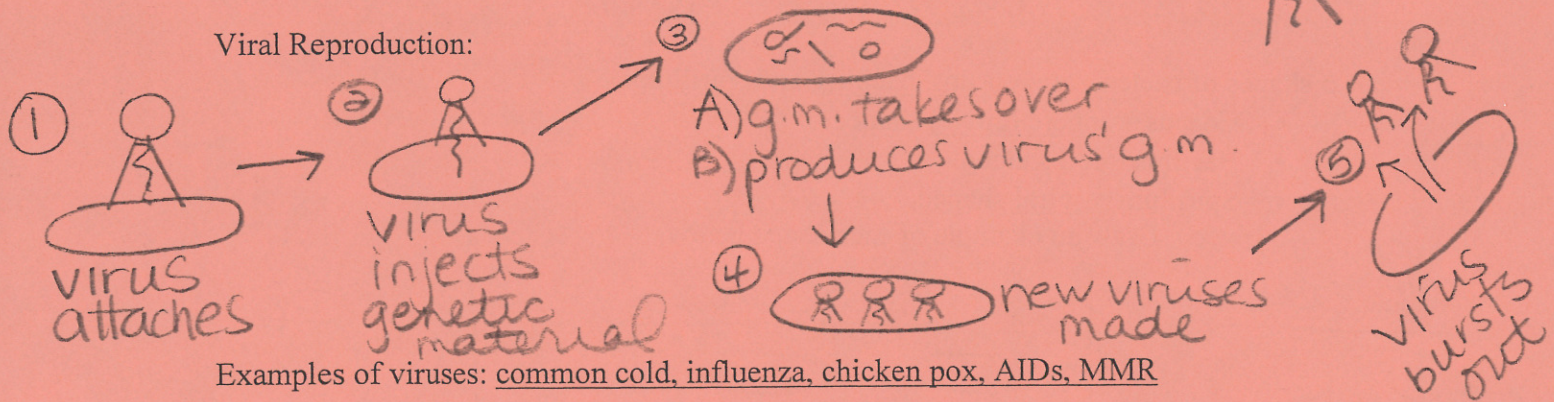
**pathogen** -- organism that causes disease

**antibiotic** -- medicine used to kill bacteria

### Characteristics of Viruses:

- Considered both living and nonliving.
  - A. Living = can reproduce.
  - B. Nonliving = can not grow or respond.
- Can only reproduce (copies DNA) in living cells.
- Needs a host -- organism that a virus lives in or on
- Structure = genetic material + capsid (protein coat).

Viral Reproduction:



Examples of viruses: common cold, influenza, chicken pox, AIDs, MMR

5 ways to transmit diseases: air, water, parasite (carrier), spoiled/uncooked food, body fluids

**Vaccine** = weakened form of a pathogen to create resistance to that disease

**Epidemic** = rapid spread of a disease through a large area